

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
4 March 2004 (04.03.2004)

PCT

(10) International Publication Number
WO 2004/018005 A1

(51) International Patent Classification⁷: A61L 15/18, 15/60, B01J 20/26, 20/12 Circle, Charlotte, NC 28227 (US). ROBINSON, James, C. [US/US]; 2903 Evergreen Ct., Chesapeake, VA 23321 (US).

(21) International Application Number: PCT/EP2003/008087 (74) Common Representative: BASF AKTIENGESELLSCHAFT; 67056 Ludwigshafen (DE).

(22) International Filing Date: 24 July 2003 (24.07.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 60/405,477 23 August 2002 (23.08.2002) US

(71) Applicant (for all designated States except US): BASF AKTIENGESELLSCHAFT [DE/DE]; 67056 Ludwigshafen (DE). (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(72) Inventors; and (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(75) Inventors/Applicants (for US only): HERFERT, Norbert [DE/US]; 3204 Trefoil Drive, Charlotte, NC 28226-7200 (US). AZAD, Michael, M. [US/US]; 6848 Braddock Ln., Charlotte, NC 28277 (US). MITCHELL, Michael, A. [US/US]; 8805 Sweetwater Pl., Waxhaw, NC 28173 (US). WOODRUM, Guy, T. [US/US]; 5300 Doral Woods Court, Suffolk, VA 23435 (US). CHIANG, William, G.-J. [US/US]; 130 Breezy Point Drive, Yorktown, VA 23692 (US). BROWN, Patricia, D. [US/US]; 12313 Paperbark

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

53866
086070

WO 2004/018005 A1

(54) Title: SUPERABSORBENT POLYMERS AND METHOD OF MANUFACTURING THE SAME

(57) Abstract: Superabsorbent polymer (SAP) particles containing a clay are disclosed. The clay is added to an SAP hydrogel prior to SAP neutralization to provide particles having improved fluid acquisition rates and an improved permeability of a fluid through the swollen SAP-clay particles. Diaper cores and absorbent articles containing the SAP-clay particles also are disclosed.

GS